

# OPEN MEETING



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MEMORANDUM

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Arizona Corporation Commission

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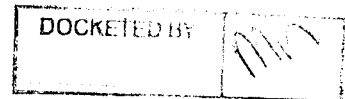
DEC 18 2009

TO: THE COMMISSION

AZ CORP COMMISSION  
DOCKET CONTROL

FROM: Utilities Division

DATE: December 18 2009



RE: ARIZONA PUBLIC SERVICE COMPANY - APPLICATION FOR APPROVAL OF ITS RENEWABLE ENERGY STANDARD AND TARIFF IMPLEMENTATION PLAN FOR 2010 (DOCKET NO. E-01345A-09-0338)

## Background

On July 1, 2009, Arizona Public Service Company ("APS" or "Company") filed its application for approval of its 2010 Implementation Plan pursuant to the Renewable Energy Standard and Tariff ("REST") Rules. On October 16, 2009, APS filed a revised Plan which would adjust certain strategies and programs and include provisions required by Commission Decision No. 71275.

*On December 2, 2009, Staff filed an Open Meeting Memorandum and Recommended Opinion. Since that time, Staff has recognized that certain issues require clarification and a more detailed discussion. Therefore, this updated memo is being issued. Changes are bolded and italicized.*

## The APS REST Implementation Plan 2010 to 2014

The APS REST Implementation Plan 2010 to 2014 is a five-year plan describing how APS intends to acquire renewables beyond the REST requirements. In a separate document, Attachment B of the APS application, APS has filed its Distributed Energy Administration Plan ("DEAP") describing how APS intends to meet the annual Distributed Renewable Energy Requirement.

APS estimates that the cost for full compliance with the REST Rules would total \$86.7 million in 2010. This is an increase of about 10.6 percent 2009's \$78.4 million. Budget details are given in Table 1 below.

APS is requesting increases in its adjustor rate to collect \$80.7 million; \$6.0 million is collected in base rates to reach the total of \$86.7 million. REST adjustor rates would increase about 9 percent and are shown below on Table 2.

**Table 1**  
**APS REST Budgets**  
(\$000)

<u>Line</u>	<u>RENEWABLE</u>	<u>2009</u>	<u>2010</u>	<u>Pct Change</u>
1	Energy Purchase	10,400	8,500	-18%
2	Administration	800	1,300	63%
3	Implementation	800	1,100	38%
4	Green Power Revenue Credit	-600	-400	-33%
5	Total Renewable	11,400	10,500	-8%
6				
7	<u>DISTRIBUTED ENERGY</u>			
8	Contracts	3,500	16,600	374%
9	Incentives:			
10	Up-Front - Residential	49,300	44,100	-11%
11	Up-Front - Non-Residential	1,300	2,000	54%
12	PBI - Non-Residential	1,100	**	
13	Customer Self-directed	0		
14	Total Incentives	51,700	46,100	-11%
15				
16	Public Assistance Program	300	500	67%
17	Administration	1,200	1,600	33%
18	Implementation	2,800	3,100	11%
19	IT	600	1,500	150%
20	Marketing	5,400	4,800	-11%
21				
22	Total Distributed Energy	65,500	74,200	13%
23				
24	<u>R&amp;D, COMMERCIALIZATION,</u>			
25	<u>INTEGRATION</u>	1,500	2,000	33%
26				
27	Total REST budget	78,400	86,700	10.6%

\*\* Included in "Contracts" (line 8) in 2010.

**Table 2**  
**REST Adjustor Rates**

			2009 Plan Decision No.70654	2010 Proposed	Percent Change
All kWh			\$0.0079370	\$0.0086620	9.13%
<b>Monthly Surcharge Limits</b>					
Residential			\$3.17	\$3.46	9.15%
Non-Residential			\$117.93	\$128.70	9.13%
Large Non-Residential			\$353.78	\$386.10	9.14%

Table 3 presents a variety of typical Customer types with the monthly RES surcharge amounts they would pay.

**Table 3**  
**Customer Impact of Proposed REST Adjustor Rates**

	<b>Customer Types and Costs</b>	<b>Monthly kWh</b>	<b>2009</b>	<b>2010</b>	<b>Pct Change</b>
1	Residence	>= 400	\$3.17	\$3.46	9.15%
2	Dentist Office	2,000	\$15.87	\$17.32	9.13%
3	Hairstylist	3,900	\$30.95	\$33.78	9.13%
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14	Hospital (> 3 MW)	2,700,000	\$353.78	\$386.10	9.14%
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16	Shopping Mall (>3MW)	1,627,100	\$353.78	\$386.10	9.14%

### **Renewable Generation**

For year 2010, APS indicates that it would own and operate approximately 6 MW of solar capacity. In addition, APS has entered into power purchase agreements for 218 MW of wind, geothermal, and biomass/biogas renewable generation capacity, and expects 20 MW from its Small Generation Request for Proposal ("RFP"). This totals 244 MW of renewable generation as described in detail in Exhibit 3B of Attachment A in the APS application.

The expected annual MWh of generation from existing contracts and planned generation is shown in Exhibit 3A of Attachment A of the APS plan. The estimate for existing renewable generation is 756,966 MWh in 2010, plus targeted additions of 22,100 MWh. Targeted additions represent APS' efforts to procure certain geothermal, solar, and other small renewables.

### **Small Generation Pilot Program**

To encourage smaller-sized renewable generation projects, APS instituted a one-year Small Generation Pilot Program as approved by the Commission in APS' 2009 REST Implementation Plan. This Program was meant to streamline the process of entering into an agreement with APS by allowing smaller solar projects of 10,000 MWh/year or less, and other renewables of 35,000 MWh/year or less to avoid the formal RFP process, which can be somewhat onerous for some small system developers.

Initial assessment of the Small Generation Pilot Program suggests that it is having a favorable impact promoting small generation renewable technologies. Thirty bids from potential small generation renewables were received in 2009. APS may issue a second RFP for year 2011. APS anticipates that 20 MW of power purchase agreements of the 224 MW in 2010 will be the result of this program.

### **Distributed Energy**

Decision No. 71275 required APS to offer proposals which could increase participation in residential Distributed Energy ("DE"). To this end, APS intends to

1. Begin a Qualified Contractors Program to ensure quality of customer's renewable installations.
2. Utilize the AZ Sun Program to install utility-scale PV at locations throughout the service territory.
3. Establish a non-profit organization focused on increasing participation in APS' DE programs.

4. *Extend the reach of its marketing, working within communities, address barriers for customers and builders, increase the visibility of DE and motivate customers through mass media.*
5. Introduce a program to encourage lenders to help customers with up-front financing.
6. Offer residential customers further incentives in addition to RES up-front incentives ("UFI").
7. Continue the Solar Homes program launched in April of 2009 in which homebuilders are rewarded for commitments to developing communities with renewable technologies.

Most non-residential DE projects are eligible for performance-based incentives ("PBI"). Over the term of a contract, typically ten or twenty years, PBI costs can become significant. APS is seeking approval of a lifetime non-residential PBI authorization of \$570 million. This would include the \$220 million authorization previously approved by the Commission (Docket No. E-01345A-09-0263).

Decision No. 71275 also required APS to offer proposals which could increase DE participation for governmental and schools customers. APS will offer these customers performance-based incentives for installation of qualifying non-residential RES facilities. *APS proposes annual increases of \$100 million in PBI commitments, with \$15 million allocated specifically to a stand-alone category consisting of schools, municipalities, and other governmental entities.*

*Staff recommends approval of APS' Commercial Proposal to assist Schools and Governmental customers. Under the Commercial Proposal, the Schools and Government Program category would be funded from the non-residential DE category and would continue to be eligible under APS' programs for non-residential installations.*

*APS proposes a Customer Aggregation Model whereby APS could contract with a third party for specific amounts of DE at specific prices. This would aid APS in dealing with DE customers, and reduce costs.*

*APS also proposes a Renewable Energy Credit ("REC") and Energy Contract Model, by which APS works with a DE developer and DE on a customer's site would be purchased by APS, and the customer would contract with APS to buy back the renewable energy.*

#### *Incentive Budgets and Performance-Based Incentives*

*The proposed DE incentives are designed to result in sufficient residential DE installations to achieve the RES target. In 2010, the allocation for residential DE incentives is \$44.1 million. The incentive budget for the non-residential program is sufficient to exceed the*

*RES target. Annual changes in program budget are designed to accommodate an increase in the DE energy target, both as an increasing fraction of the total RES requirement and as the requirement itself increases.*

*The incentive budget for the non-residential DE program is expected to result in sufficient DE installations to exceed the RES targets in each year of this Plan. The budget can generally be divided into three areas: 1) funds necessary to meet PBI obligations entered into through year-end 2009, 2) funds necessary to meet contract obligations for contracts entered into as part of the DE RFP, and 3) funds for expanding the non-residential program beyond that required strictly for near-term compliance. In sum, these commitments to customers' incentives are \$18.2 million in 2010.*

*During 2009, APS experienced an unexpectedly large number of reservations for distributed projects under the program. As a result of the surge in customer requests for PBI reservations, APS requested and received approval to increase the lifetime authorization for PBI commitments to \$220 million from \$77 million.*

*APS proposes changes to PBI incentives. Funds offered under APS' expanded new non-residential program will be divided into four categories that include Large Projects (PBI), Medium Projects (PBI), Small Projects (UFI), and qualifying projects under the Schools and Governmental Program (PBI).*

- 1. Large Projects are defined as greater than 100 kW or whose lifetime incentive commitment is greater than \$2.5 million dollars. Large Projects will be eligible for PBI, capped at a capacity size of 2,000 kW per interconnection point, with semi-annual nomination periods.*
- 2. Medium Projects are rated at 100 kW or less or whose lifetime incentive commitment is less than \$2.5 million dollars, and does not qualify for an up-front incentive. Medium Projects will be eligible for PBI, with six, bi-monthly nomination periods.*
- 3. Small Projects qualify for a UFI.*
- 4. School and Government Projects will be eligible for a PBI on a first-come, first-reserved basis.*

*As part of this Plan, APS has developed its expansion of the non-residential DE program around an annually increasing lifetime PBI authorization. Specifically, in each year of the Plan, APS proposes increasing the lifetime PBI authorization by \$100 million. APS anticipates that the increased funding under the lifetime PBI commitment will result in a growing number of increasingly cost-effective customer DE installations.*

*APS views projects resulting from the DE RFP as substantially the same as commitments under the PBI program. As a result, the Company has included those commitments in its calculation of lifetime PBI authorization. In 2010, the lifetime PBI authorization necessary to implement those projects and program described by this Plan totals \$570 million, with \$250 million required for the DE RFP, \$100 million for the proposed increasing the lifetime PBI authorization, and the \$220 million previously authorized.*

*Staff recommends approval of the lifetime PBI authorization to better accommodate the demand for non-residential DE.*

#### **The APS Distributed Energy Administration Plan**

APS proposes minor modifications to the DEAP Plan that was approved by the Commission in Decision No. 70654 (December 18, 2008).

The proposed revisions are intended to improve customer service and lead to increased customer participation and satisfaction and include:

- Simplified calculation of up-front incentive for small wind generators.
- Guidelines for design and installation of geothermal heating and cooling systems.
- Categorizing non-residential DE as Large, Medium, or Small and specifying a process for obtaining incentives.
- Reducing customer's time to execute a Credit Purchase Agreement from 60 days to 30 days.

#### **The AZ Sun Program**

*The AZ Sun program would provide diversification of APS' renewable portfolio that today consists primarily of Power Purchase Agreements to include more utility-owned renewable resources. APS anticipates the facilities would be ground-mounted solar PV systems. According to APS, the program may also include utility scale systems located on a customer's premise, thereby qualifying as distributed energy. Staff does not recommend that this project qualify as distributed energy.*

*The Company plans to invest \$500 million over four years to develop 100 MWs of solar resources. APS expects to acquire these resources through competitive procurement processes beginning in 2010. The Company expects to develop 25 MWs each year but may accelerate development of this capacity if it is reasonable to do so.*

*As proposed, the AZ Sun program stipulates a capital investment of approximately \$500 million to be made beginning in 2010 through 2014 to develop 100 MW of solar generation*

*capacity. This is based on an average solar PV capital cost of \$5.00/watt. The cost of the actual systems deployed will be based on competitive procurement processes, and will likely vary with the size of the system. Smaller systems tend to be greater cost per watt, while larger sized systems cost less due to economies of scale.*

*The revenue requirement that APS proposes to recover through the RES for each 25 MW increment is estimated to be \$16.1 million in the first year of operation and \$256 million over the 30 year life of the project, based on an average capital cost of \$5.00/watt and other financing, tax and operation cost assumptions.*

*APS is proposing that revenue requirements for the AZ Sun program including return, income taxes, and depreciation; property taxes; and O&M expenses would be recovered through the RES adjustor until the investment is included in base rates or other recovery mechanism. APS notes that resources under this program are not likely to commence commercial operation until 2011. As such, the requested 2010 RES adjustor does not include any amounts for AZ Sun Program revenue requirements.*

*Staff recommends approval of the AZ Sun Program, but recommends a more traditional recovery during the construction period and prior to rate base treatment, consisting of capitalized AFUDC, rather than using REST funds to cover investment-related costs.*

#### **Flagstaff Project**

In Docket No. E-01345A-09-0227, APS has proposed its Flagstaff Community Power Project – a blending of two important new technologies, Distributed Energy and the “Smart” distribution system. Thus, APS would gain valuable experience as to how DE systems impact the distribution system. The Flagstaff Project would provide customers with the benefits of Solar, including pricing, with no capital investment on the customer’s part. The Flagstaff project is included as part of this Implementation Plan; however, Staff is addressing the Flagstaff project in Docket No. E-01345A-09-0227.

#### **Distributed Public Assistance Program**

As part of its 2009 Implementation Plan, APS began a Distributed Public Assistance Program (“DPAP”) to help meet the needs of schools, low-income, governmental, and non-profit customers who may be interested in acquiring a DE system. APS proposes a 2010 annual budget of \$500,000 which is an increase of \$200,000 over 2009 to be used for increased incentives, system installation assistance, and administrative expenses. These types of customers may have limited financial means, and may not be eligible for tax credits. APS’ DPAP could result in larger incentives for low-income customers, and in some cases provide for complete installations of renewable systems.



Comments of Other Parties

*Comments from three interested parties were received in this docket: Infinia Corporation, Green Choice Solar, and The Solar Alliance. APS also provided comments on Staff's recommendation.*

*The Solar Alliance proposes to:*

- 1. Re-examine the 10 percent PBI reduction which provides a measure of predictability to the market, but may be inadequate;*
- 2. Eliminate incentive caps that are a function of system costs, and instead utilize declining incentive mechanisms as the method to match incentives to the market;*
- 3. Develop trigger mechanisms that would automatically reduce UFI rates to maintain market stability; and*
- 4. Support utility-owned solar assets, as long as the energy produced is not counted towards Distributed Generation requirements.*

*Staff requires additional information to thoroughly evaluate the implications of PBI reductions, elimination of incentive caps, and the development of trigger mechanisms to reduce UFI rates as proposed by The Solar Alliance. Staff does not recommend that this project qualify as distributed energy.*

*Green Choice proposes to:*

- 1. Require the utilities to post up-to-date information on their websites regarding funding reserves for residential and non-residential DE categories;*
- 2. Require a reservation fee for incentive funding requests;*
- 3. Eliminate the nomination process for all categories of PBI funding, or increase the number of nomination periods for Large Project category from two to six;*
- 4. Lower the per kWh rates for PBIs;*
- 5. Eliminate UFI for non-residential projects; and*
- 6. Accelerate the utility process for ranking projects and notifying customers of reservations.*

*Staff supports Green Choice's first proposal to improve funding reserve communication. Staff requires additional information to thoroughly evaluate the implications*

*of the proposal for a reservation fee. Staff does not support elimination of the nomination process for all categories of PBI funding and supports APS' proposal of two nomination periods for Large Projects. Staff believes that additional data is required to make recommendations to lower the per kWh rate for PBIs or eliminate the UFI for non-residential projects. Finally, while the concept of accelerating the ranking of projects and notifying customers of reservations appears positive, Staff lacks clear evidence to support the recommendation at this time.*

*Infinia Corporation requests:*

- 1. Approval for Infinia's solar electric generating technology to be included in the definition of DE technologies eligible for incentives in APS programs*
- 2. Inclusion as an eligible technology for the Flagstaff Community Solar Pilot and the proposed AZ Sun program.*

*Staff supports including dish Stirling technology within APS' definition of solar generators that qualify for incentives.*

*APS' comments support Staff's recommendations, and point out that the demand for UFI funding under the non-residential program will most likely exceed the \$2 million budget early in 2010. APS proposes two optional solutions to this problem.*

- 1. The Commission could determine that funding for non-residential UFI would no longer be on a first-come-first-served basis, but rather, projects would be selected on a competitive basis in each of the six nomination periods each year. The competitive process would be as described in APS' DEAP.*
- 2. Simply increase the UFI incentive budget for 2010 by \$6 to \$9 million.*
- 3. A combination of the two.*

*Staff supports the competitive selection of non-residential UFI projects during the six nomination periods each year.*

*As indicated, the DEAP already describes a process to select the highest ranking projects based on a specific project ranking calculation in the event the demand for incentives exceeds the budgeted funds available. Staff believes this would be a fair, efficient, and cost-effective selection process.*

#### Staff Recommendations

Because APS' plan allows it to meet the Commission-approved REST requirements in 2010, Staff recommends that APS' 2010 REST Implementation Plan be approved. This Plan

THE COMMISSION

December 18, 2009

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cost is \$86.7 million, and continues to meet full REST requirements, consistent with the 2009 plan approved by the Commission.

Staff recommends that the RES Adjustor Rate be reset accordingly to \$0.008662 per kWh with monthly caps of \$3.46 for residential customers, \$128.70 for non-residential customers, and \$386.10 for non-residential customers with demands of 3 MW or greater.

Staff recommends approval of APS' Commercial Proposal to help Schools and Governmental customers.

Staff recommends approval of APS' lifetime PBI authorization.


Staff recommends approval of the AZ Sun Program, and recommends a traditional recovery during the construction period and prior to rate base treatment, rather than using REST funds to cover investment-related costs.

To the extent that demand for UFI funding under the non-residential program exceeds APS' \$2 million budget, Staff recommends that the Commission approve the competitive selection of projects during the six nomination periods each year rather than increasing funding for the non-residential UFI program.

Staff requires additional information to thoroughly evaluate the implication of PBI reductions, elimination of incentive caps, and the development of trigger mechanisms to reduce UFI rates as proposed by The Solar Alliance. Staff does not recommend that this project qualify as distributed energy.

Staff supports Green Choice's proposal to improve funding reserve communication, but requires additional information to evaluate the implications of Green Choice's other proposals.

Staff supports Infinia's proposal to include dish Stirling technology within APS' definition of solar generators that qualify for incentives.

*for*   
Steven M. Orea  
Director  
Utilities Division

SMO:JJP:lhv\WVC

ORIGINATOR: Jeffrey Pasquinelli

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**BEFORE THE ARIZONA CORPORATION COMMISSION**

KRISTIN K. MAYES  
Chairman  
GARY PIERCE  
Commissioner  
PAUL NEWMAN  
Commissioner  
SANDRA D. KENNEDY  
Commissioner  
BOB STUMP  
Commissioner

IN THE MATTER OF ARIZONA PUBLIC  
SERVICE COMPANY – APPLICATION  
FOR APPROVAL OF ITS RENEWABLE  
ENERGY STANDARD AND TARIFF  
IMPLEMENTATION PLAN FOR 2010

DOCKET NO. E-01345A-09-0338  
DECISION NO. \_\_\_\_\_  
ORDER

Open Meeting  
December 22, 2009  
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. Arizona Public Service Company (“APS” or “Company”) is certificated to provide electric service as a public service corporation in the State of Arizona.

2. On July 1, 2009, APS filed its application for approval of its 2010 Implementation Plan pursuant to the Renewable Energy Standard and Tariff (“REST”) Rules. On October 16, 2009, APS filed a revised Plan which would adjust certain strategies and programs and include provisions required by Commission Decision No. 71275.

The APS REST Implementation Plan 2010 to 2014

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Decision No. \_\_\_\_\_

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22       ("UFI").
- 23       g) Continue the Solar Homes program launched in April of 2009 in which homebuilders  
24       are rewarded for commitments to developing communities with renewable  
25       technologies.

26       11. Most non-residential DE projects are eligible for performance-based incentives  
27 ("PBI"). Over the term of a contract, typically ten or twenty years, PBI costs can become  
28 significant. APS is seeking approval of a lifetime non-residential PBI authorization of \$570  
million. This would include the \$220 million authorization previously approved by the  
Commission (Docket No. E-01345A-09-0263).



1           12.     Decision No. 71275 also required APS to offer proposals which could increase DE  
2 participation for governmental and schools customers. APS will offer these customers  
3 performance-based incentives for installation of qualifying non-residential RES facilities. APS  
4 proposes annual increases of \$100 million in PBI commitments, with \$15 million allocated  
5 specifically to a stand-alone category consisting of schools, municipalities, and other governmental  
6 entities.

7           13.     Staff has recommended approval of APS' Commercial Proposal to help Schools  
8 and Governmental customers. Under the Commercial Proposal, the Schools and Government  
9 Program category would be funded from the non-residential DE category and would continue to be  
10 eligible under APS' programs for non-residential installations.

11           14.     APS proposes a Customer Aggregation Model whereby APS could contract with a  
12 third party for specific amounts of DE at specific prices. This would aid APS in dealing with DE  
13 customers, and reduce costs.

14           15.     APS also proposes a Renewable Energy Credit ("REC") and Energy Contract  
15 Model, by which APS works with a DE developer and DE on a customer's site would be  
16 purchased by APS, and the customer would contract with APS to buy back the renewable energy.

17     **Incentive Budgets and Performance-Based Incentives**

18           16.     The proposed DE incentives are designed to result in sufficient residential DE  
19 installations to achieve the RES target. In 2010, the allocation for residential DE incentives is  
20 \$44.1 million. The incentive budget for the non-residential program is sufficient to exceed the  
21 RES target. Annual changes in program budget are designed to accommodate an increase in the  
22 DE energy target, both as an increasing fraction of the total RES requirement and as the  
23 requirement itself increases.

24           17.     The incentive budget for the non-residential DE program is expected to result in  
25 sufficient DE installations to exceed the RES targets in each year of this Plan. The budget can  
26 generally be divided into three areas: 1) funds necessary to meet PBI obligations entered into  
27 through year-end 2009, 2) funds necessary to meet contract obligations for contracts entered into  
28 as part of the DE RFP, and 3) funds for expanding the non-residential program beyond that

1 required strictly for near-term compliance. In sum, these commitments to customers' incentives are  
2 \$18.2 million in 2010.

3 18. During 2009, APS experienced an unexpectedly large number of reservations for  
4 distributed projects under the program. As a result of the surge in customer requests for PBI  
5 reservations, APS requested and received approval to increase the lifetime authorization for PBI  
6 commitments to \$220 million from \$77 million.

7 19. APS proposes changes to PBI incentives. Funds offered under APS' expanded new  
8 non-residential program will be divided into four categories that include Large Projects (PBI),  
9 Medium Projects (PBI), Small Projects (UFI), and qualifying projects under the Schools and  
10 Governmental Program (PBI).

11 a. Large Projects are defined as greater than 100 kW or whose lifetime incentive  
12 commitment is greater than \$2.5 million dollars. Large Projects will be eligible for  
13 PBI, capped at a capacity size of 2,000 kW per interconnection point, with semi-  
annual nomination periods.

14 b. Medium Projects are rated at 100 kW or less or whose lifetime incentive commitment  
15 is less than \$2.5 million dollars, and does not qualify for an up-front incentive.  
Medium Projects will be eligible for PBI, with six, bi-monthly nomination periods.

16 c. Small Projects qualify for a UFI.

17 d. School and Government Projects will be eligible for a PBI on a first-come, first-  
18 reserved basis.

19 20. As part of this Plan, APS has developed its expansion of the non-residential DE  
20 program around an annually increasing lifetime PBI authorization. Specifically, in each year of the  
21 Plan, APS proposes increasing the lifetime PBI authorization by \$100 million. APS anticipates  
22 that the increased funding under the lifetime PBI commitment will result in a growing number of  
23 increasingly cost-effective customer DE installations.

24 21. APS views projects resulting from the DE RFP as substantially the same as  
25 commitments under the PBI program. As a result, the Company has included those commitments  
26 in its calculation of lifetime PBI authorization. In 2010, the lifetime PBI authorization necessary to  
27 implement those projects and program described by this Plan totals \$570 million, with \$250  
28 ...

1 million required for the DE RFP, \$100 million for the proposed increasing the lifetime PBI  
2 authorization, and the \$220 million previously authorized.

3 22. Staff has recommended approval of the lifetime PBI authorization to better  
4 accommodate the demand for non-residential DE.

5 **The APS Distributed Energy Administration Plan**

6 23. APS proposes minor modifications to the DEAP Plan that was approved by the  
7 Commission in Decision No. 70654 (December 18, 2008).

8 24. The proposed revisions are intended to improve customer service and lead to  
9 increased customer participation and satisfaction and include:

- 10 ▪ Simplified calculation of up-front incentive for small wind generators.
- 11 ▪ Guidelines for design and installation of geothermal heating and cooling systems.
- 12 ▪ Categorizing non-residential DE as Large, Medium, or Small and specifying a  
13 process for obtaining incentives.
- 14 ▪ Reducing customer's time to execute a Credit Purchase Agreement from 60 days to  
15 30 days.

16 **The AZ Sun Program**

17 25. The AZ Sun program would provide diversification of APS' renewable portfolio  
18 that today consists primarily of Power Purchase Agreements to include more utility-owned  
19 renewable resources. APS anticipates the facilities would be ground-mounted solar PV systems.  
20 According to APS, the program may also include utility scale systems located on a customer's  
21 premise, thereby qualifying as distributed energy. Staff does not recommend that this project  
22 qualify as distributed energy.

23 26. The Company plans to invest \$500 million over four years to develop 100 MWs of  
24 solar resources. APS expects to acquire these resources through competitive procurement  
25 processes beginning in 2010. The Company expects to develop 25 MWs each year but may  
26 accelerate development of this capacity if it is reasonable to do so.

27 27. As proposed, the AZ Sun program stipulates a capital investment of approximately  
28 \$500 million to be made beginning in 2010 through 2014 to develop 100 MW of solar generation  
capacity. This is based on an average solar PV capital cost of \$5.00/watt. The cost of the actual

1 systems deployed will be based on competitive procurement processes, and will likely vary with  
2 the size of the system. Smaller systems tend to be greater cost per watt, while larger sized systems  
3 cost less due to economies of scale.

4 28. The revenue requirement that APS proposes to recover through the RES for each 25  
5 MW increment is estimated to be \$16.1 million in the first year of operation and \$256 million over  
6 the 30 year life of the project, based on an average capital cost of \$5.00/watt and other financing,  
7 tax and operation cost assumptions.

8 29. APS is proposing that revenue requirements for the AZ Sun program including  
9 return, income taxes, and depreciation; property taxes; and O&M expenses would be recovered  
10 through the RES adjustor until the investment is included in base rates or other recovery  
11 mechanism. APS notes that resources under this program are not likely to commence commercial  
12 operation until 2011. As such, the requested 2010 RES adjustor does not include any amounts for  
13 AZ Sun Program revenue requirements.

14 30. Staff has recommended approval of the AZ Sun Program, but has recommended a  
15 more traditional cost recovery during the construction period and prior to rate base treatment,  
16 consisting of capitalized AFUDC, rather than using REST funds to cover investment-related costs.

17 **Flagstaff Project**

18 31. In Docket No. E-01345A-09-0227, APS has proposed its Flagstaff Community  
19 Power Project – a blending of two important new technologies, Distributed Energy and the  
20 “Smart” distribution system. Thus, APS would gain valuable experience as to how DE systems  
21 impact the distribution system. The Flagstaff Project would provide customers with the benefits of  
22 Solar, including pricing, with no capital investment on the customer’s part. The Flagstaff project  
23 is included as part of this Implementation Plan; however, Staff is addressing the Flagstaff project  
24 in Docket No. E-01345A-09-0227.

25 ...

26 ...

27 ...

28 ...

**Distributed Public Assistance Program**

32. As part of its 2009 Implementation Plan, APS began a Distributed Public Assistance Program ("DPAP") to help meet the needs of schools, low-income, governmental, and non-profit customers who may be interested in acquiring a DE system. APS proposes a 2010 annual budget of \$500,000 which is an increase of \$200,000 over 2009 to be used for increased incentives, system installation assistance, and administrative expenses. These types of customers may have limited financial means, and may not be eligible for tax credits. APS' DPAP could result in larger incentives for low-income customers, and in some cases provide for complete installations of renewable systems.

**Comments of Other Parties**

33. Comments from three interested parties were received in this docket: Infinia Corporation, Green Choice Solar, and The Solar Alliance. APS also provided comments on Staff's recommendation.

34. Solar Alliance proposes to:

- a. Re-examine the 10 percent PBI reduction which provides a measure of predictability to the market, but may be inadequate;
- b. Eliminate incentive caps that are a function of system costs, and instead utilize declining incentive mechanisms as the method to match incentives to the market;
- c. Develop trigger mechanisms that would automatically reduce UFI rates to maintain market stability; and
- d. Support utility-owned solar-owned assets, as long as the energy produced does not count toward Distributed Generation requirements.

35. Staff requires additional information to thoroughly evaluate the implication of PBI reductions, elimination of incentive caps, and the development of trigger mechanisms to reduce UFI rates as proposed by The Solar Alliance. Staff does not recommend that this project qualify as distributed energy.

36. Green Choice proposes to:

- a. Require the utilities to post up-to-date information on their websites regarding funding reserves for residential and non-residential DE categories;

...

- b. Require a reservation fee for incentive funding requests;
- c. Eliminate the nomination process for all categories of PBI funding, or increase the number of nomination periods for Large Project category from two to six;
- d. Lower the per kWh rates for PBIs;
- e. Eliminate UFI for non-residential projects; and
- f. Accelerate the utility process for ranking projects and notifying customers of reservations.

37. Staff supports Green Choice's first proposal to improve funding reserve communication. Staff requires additional information to thoroughly evaluate the implications of the proposal for a reservation fee. Staff does not support elimination of the nomination process for all categories of PBI funding and supports APS' proposal of two nomination periods for Large Projects. Staff believes that additional data is required to make recommendations to lower the per-kWh rate for PBIs or eliminate the UFI for non-residential projects. Finally, while the concept of accelerating the ranking of projects and notifying customers of reservations appears positive, Staff lacks clear evidence to support the recommendation at this time.

38. Infinia Corporation requests:

- a. Approval for Infinia's solar electric generating technology to be included in the definition of DE technologies eligible for incentives in APS programs.
- b. Inclusion as an eligible technology for the Flagstaff Community Solar Pilot and the proposed AZ Sun program.

39. Staff supports including dish Stirling technology within APS' definition of solar generators that qualify for incentives.

40. APS' comments support Staff's recommendations, and point out that the demand for UFI funding under the non-residential program will most likely exceed the \$2 million budget early in 2010. APS proposes two optional solutions to this problem.

- a. The Commission could determine that funding for non-residential UFI would no longer be on a first-come-first-served basis, but rather, projects would be selected on a competitive basis in each of the six nomination periods each year. The competitive process would be as described in APS' DEAP.

- Simply increase the UFI incentive budget for 2010 by \$6 to \$9 million.
- A combination of the two.

41. Staff is not in favor of increasing funding for the non-residential UFI program, and has recommended the Commission approve the competitive selection of projects during the six nomination periods each year.

42. As indicated, the DEAP already describes a process to select the highest ranking projects based on a specific project ranking calculation in the event the demand for incentives exceeds the budgeted funds available. Staff believes this would be a fair, efficient, and cost-effective selection process.

### Staff Recommendations

43. Staff has recommended that APS' 2010 REST Implementation Plan be approved. This Plan cost is \$86.7 million, and continues to meet full REST requirements, consistent with the 2009 plan approved by the Commission.

44. Staff has recommended that the RES Adjustor Rate be reset accordingly to \$0.008662 per kWh with monthly caps of \$3.46 for residential customers, \$128.70 for non-residential customers, and \$386.10 for non-residential customers with demands of 3 MW or greater.

45. Staff has recommended approval of APS' Commercial Proposal to help Schools and Governmental customers.

46. Staff has recommended approval of APS' lifetime PBI authorization.

47. Staff has recommended approval of the AZ Sun Program, and recommends a traditional recovery during the construction period and prior to rate base treatment, rather than using REST funds to cover investment-related costs.

48. To the extent demand for UFI funding under the non-residential program exceeds APS' \$2 million budget, Staff has recommended that the Commission approve the competitive selection of projects during the six nomination periods each year rather than increasing funding for the non-residential UFI program.

49. Staff requires additional information to thoroughly evaluate the implication of PBI reductions, elimination of incentive caps, and the development of trigger mechanisms to reduce UFI proposed by The Solar Alliance. Staff does not recommend that project qualify as distributed energy.

50. Staff supports Green Choice's proposal to improve funding reserve communication, but requires additional information to thoroughly evaluate the implications of Green Choice's other proposals.

51. Staff supports Infinia's proposal to include dish Stirling technology within APS' definition of solar generators that qualify for incentives.

## CONCLUSIONS OF LAW

1. APS an Arizona public service corporation within the meaning of Article XV, Section 2 of the Arizona Constitution.

2. The Commission has jurisdiction over APS and over the subject matter of the application.

3. The Commission, having reviewed the application and Staff's Memorandum dated December 18, 2009 concludes that it is in the public interest to approve the APS 2010 REST Implementation Plan as discussed herein.

## ORDER

IT IS THEREFORE ORDERED that Arizona Public Service Company's 2010 REST Implementation Plan be and hereby is approved as discussed herein.

IT IS FURTHER ORDERED that Arizona Public Service Company's Renewable Energy Standard Tariff be set at the proposed levels shown in Table 2 herein.

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1 IT IS FURTHER ORDERED that Arizona Public Service Company file in Docket Control  
2 a revised Tariff including the updated REST rates in compliance with the Decision in this case  
3 within 15 days of the effective date of the Decision.

4 IT IS FURTHER ORDERED that this Decision shall become effective immediately.

5  
6 **BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION**

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8 \_\_\_\_\_  
CHAIRMAN

COMMISSIONER

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10 \_\_\_\_\_  
COMMISSIONER

COMMISSIONER

COMMISSIONER

11  
12 IN WITNESS WHEREOF, I, ERNEST G. JOHNSON,  
13 Executive Director of the Arizona Corporation Commission,  
14 have hereunto, set my hand and caused the official seal of  
15 this Commission to be affixed at the Capitol, in the City of  
16 Phoenix, this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

17 \_\_\_\_\_  
18 ERNEST G. JOHNSON  
EXECUTIVE DIRECTOR

19  
20 DISSENT: \_\_\_\_\_

21 DISSENT: \_\_\_\_\_

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